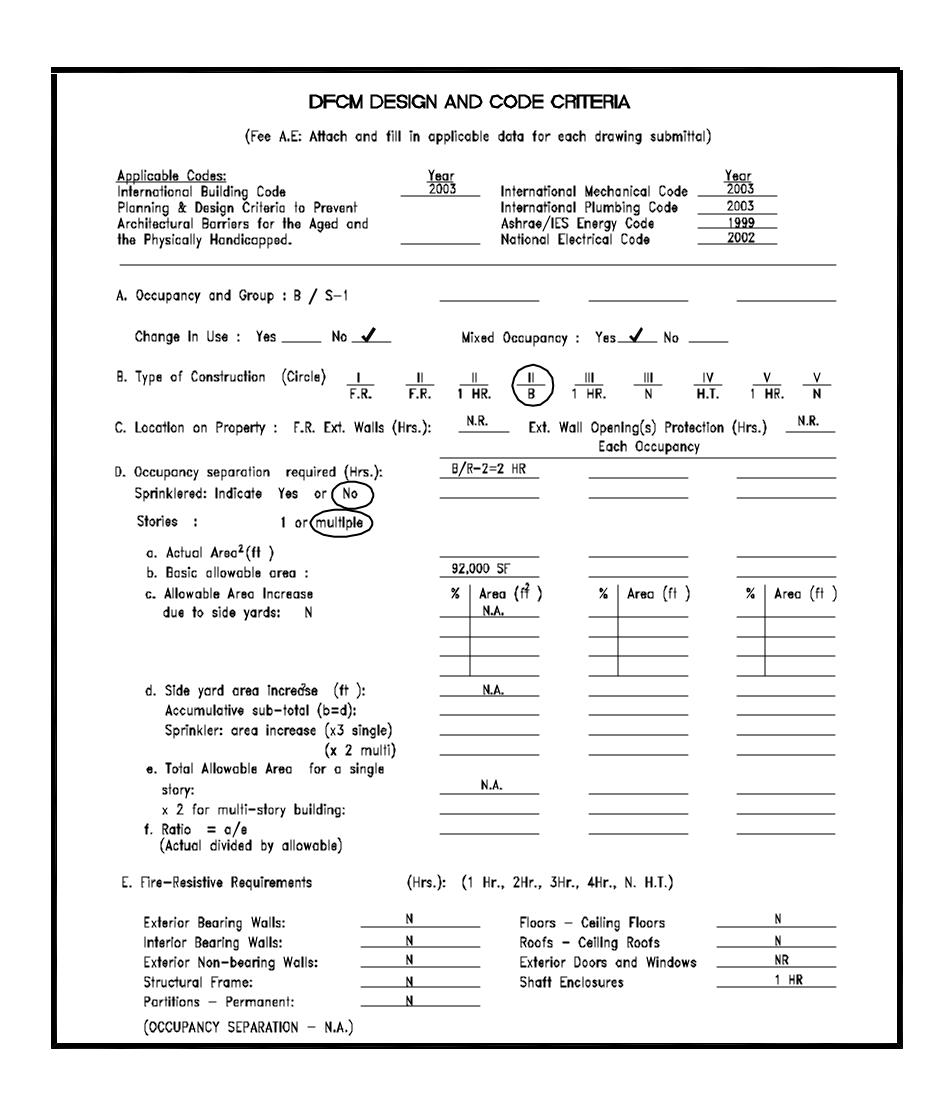
DEPARTMENT OF NATURAL RESOURCES ADMIN. BUILDING - WATER SUPPLY NETWORK REPLACEMENT PROJECT #04206500

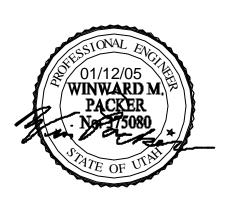




State of Utah—Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

4110 State Office Building / Salt Lake City, Utah 84114 / 538-3018



MECHANICAL ENGINEER

WHW ENGINEERING, INC.

1354 EAST 3300 SOUTH

SUITE 200

SALT LAKE CITY, UTAH 84106

PHONE: (801) 466-4021 FAX: (801) 466-8536



DRAWING INDEX:

P-000 TITLE SHEET

WHW

ENGINEERING INC.

PROFESSIONAL MECHANICAL ENGINEERING

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P-001 PLUMBING GENERAL NOTES AND LEGEND

PD-101 FIRST FLOOR CULINARY WATER PIPING DEMOLITION PLAN

PD-102 SECOND FLOOR CULINARY WATER PIPING DEMOLITION PLAN

PD-103 THIRD FLOOR CULINARY WATER PIPING DEMOLITION PLAN

PD-201 ENLARGED CULINARY PIPING RESTROOM DEMO. PLANS

PD-501 CULINARY PIPING DEMOLITION DETAILS

E-101 FIRST FLOOR NEW CULINARY WATER PIPING PLAN

PE-102 SECOND FLOOR NEW CULINARY WATER PIPING PLAN

PE-103 THIRD FLOOR NEW CULINARY WATER PIPING PLAN

PE-201 ENLARGED CULINARY PIPING RESTROOM PLANS

PE-501 CULINARY PIPING DETAILS

PE-502 CULINARY PIPING INSTALLATION DETAILS

PE-901 CULINARY WATER PIPING ISOMETRIC

	MECHANICAL LEGEND							
SYMBOL	SYMBOL ABR. DESCRIPTION			ABR.	DESCRIPTION			
GENERAL	GENERAL TERMINOLOGY							
A		SECTION LETTER DESIGNATION	<u> </u>		ELBOW UP			
ME-5		- SECTION DRAWN ON THIS SHEET	Ç		ELBOW DOWN			
D1		DETAIL NUMBER DESIGNATION			TEE UP			
ME501		- DETAIL DRAWN ON THIS SHEET	-:		TEE DOWN			
CH		MECHANICAL EQUIPMENT DESIGNATION			EXISTING PIPING TO BE REMOVED			
2		- EQUIPMENT ITEM DESIGNATION			EXISTING PIPING TO REMAIN			
Â		REVISION DESIGNATOR AND NUMBER			NEW PIPING			
1		KEY NOTE DESIGNATOR AND NUMBER			PIPE CAP OR PLUG			
•	POC	POINT OF CONNECTION	— D —		DRAIN PIPING			
•	POR	POINT OF REMOVAL			UNION			
GC		GENERAL CONTRACTOR	Г		MANUAL ACTUATOR (BALL, BUTTERFLY,			
MC		MECHANICAL CONTRACTOR			NEEDLE, ETC. VALVES)			
EC		ELECTRICAL CONTRACTOR	<u> </u>		FLANGES			
NIC		NOT IN CONTRACT	— Ф—	BV	BALL VALVE SCREWED			
NTS		NOT TO SCALE			CULINARY WATER COLD			
С		COMMON			CULINARY WATER HOT			
NC		NORMALLY CLOSED	— ми —		MAKE-UP WATER			
NO		NORMALLY OPEN						
	1			I	-			

MECHANICAL GENERAL NOTES:

PLUMBING INFORMATION IS LIMITED TO THE DOCUMENTS.

A - EACH DRAWING SHEET AND THE SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER AND THEY SHALL BE INTERPRETED AS AN INTEGRAL UNIT WITH ITEMS SHOWN AND NOTED ON ONE AND NOT THE OTHER BEING FURNISHED AND INSTALLED AS THOUGH SHOWN AND CALLED OUT IN ALL PLACES. ITEMS IN SPECIFICATIONS OR DRAWINGS LISTED WHICH ARE DIFFERING IN EFFICIENCY OR QUALITY SHALL BE HELD TO THE GREATEST OF EFFICIENCY, QUALITY OR GOVERNING CODE.

B - THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE INSTALLATION OF THE SYSTEMS ACCORDING TO THE TRUE INTENT AND MEANING OF THE CONTRACT DOCUMENTS.

C - THE CONTRACTOR SHALL INSTALL NEW PIPING, VALVES AND WATER HEATER WITH PROPER SERVICE ACCESS AND CLEARANCES ACCORDING TO MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL REVIEW SUPPLIERS BID PACKAGES FOR COMPLETENESS AND COMPLIANCE TO THE SPECIFICATIONS, SCHEDULES, AND DESIGN INTENT. THE CONTRACTOR SHALL REMOVE AND REINSTALL CORRECTLY AT HIS OWN EXPENSE ANY ITEMS NOT IN COMPLIANCE.

D - THE CONTRACTOR SHALL CONSULT MANUFACTURERS INSTALLATION INSTRUCTIONS FOR SIZES, ELECTRICAL REQUIREMENTS, METHODS, ACCESSORIES, AND CLEARANCES IN SPACE AVAILABLE PRIOR TO BIDDING PROJECT.

E - ANYTHING NOT CLEAR OR IN CONFLICT WILL BE EXPLAINED BY MAKING APPLICATION TO THE ENGINEER IN WRITING.

ANY AND ALL ALTERATIONS TO THE SYSTEM SHOWN SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. ENGINEER SHALL BE NOTIFIED IN WRITING PRIOR TO ANY CHANGES.

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND LOCATIONS.

THE WORKING DRAWINGS ARE DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND, OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL LOCATIONS FOR PIPING, CONNECTIONS ETC. SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL DRAWINGS.

THE INSTRUCTION TO "PROVIDE" ALSO INCLUDES INSTALLATION.

SUPPLIERS SHALL REVIEW ALL DRAWINGS AND THE SPECIFICATIONS PRIOR TO SUBMITTING PRICES TO THE CONTRACTOR. ALL QUESTIONS AND DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO BIDDING.

CONTRACTOR SHALL THOROUGHLY REVIEW AND SIGN SUBMITTALS FOR COMPLETENESS AND COMPLIANCE TO THE SPECIFICATIONS PRIOR TO ENGINEERS REVIEW. SUPPLIERS SHALL HIGHLIGHT OR MARK ALL INFORMATION REQUIRED TO SHOW COMPLIANCE TO THE SPECIFICATIONS. ALL REQUESTED EXCEPTIONS TO THE SPECIFICATIONS. OR SCHEDULES SHALL BE CLEARLY NOTED AND EXPLAINED. SUBMITTAL REVIEW AND ACCEPTANCE IS FOR DESIGN CONCEPT ONLY, AND DOES NOT AT ANY TIME RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO MEET SPECIFICATIONS, CAPACITIES, OR DESIGN INTENT.

ALL PLUMBING SHALL BE INSTALLED AND CONFORM TO THE 2003 EDITION OF THE IPC WITH UTAH ANNOTATIONS.

ALL REMOVED ITEMS, PIPING ETC. SHALL BELONG TO THE CONTRACTOR FOR HIS DISPOSAL.

State of Utah Department of Administrative Services



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PROJECT NAME & ADDRESS

DEPARTMENT OF NATURAL RESOURCES ADMIN. BUILDING WATER SUPPLY NETWORK REPLACEMENT

DFCM# 04206500

SALT LAKE CITY, UTAH

MARK	DATE	REVISION

PROJECT MANAGER: DRAWN BY: STAFF CHECKED BY: SLW/WP

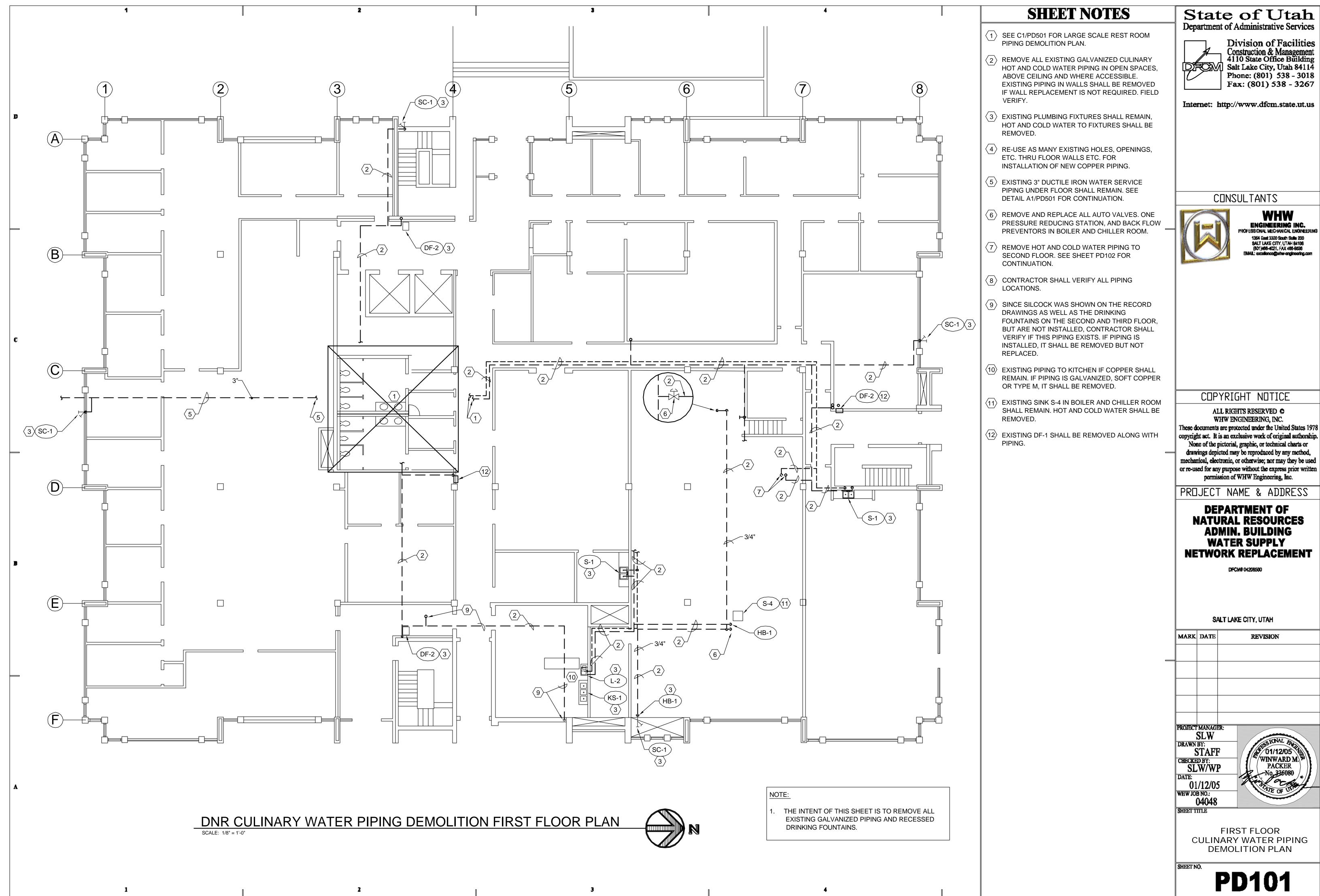
01/12/05 WHW JOB NO.:

04048

PLUMBING GENERAL NOTES & LEGEND

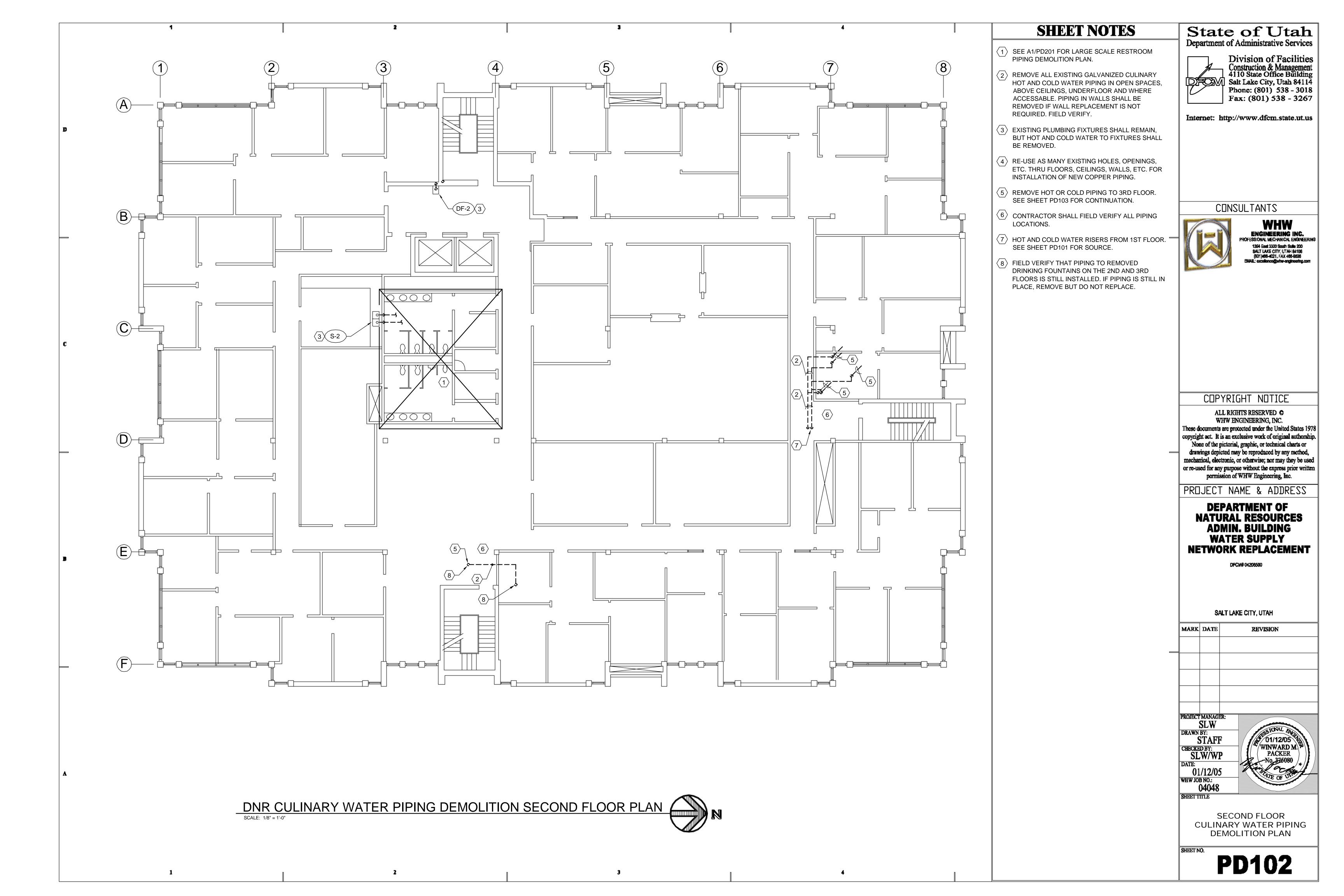
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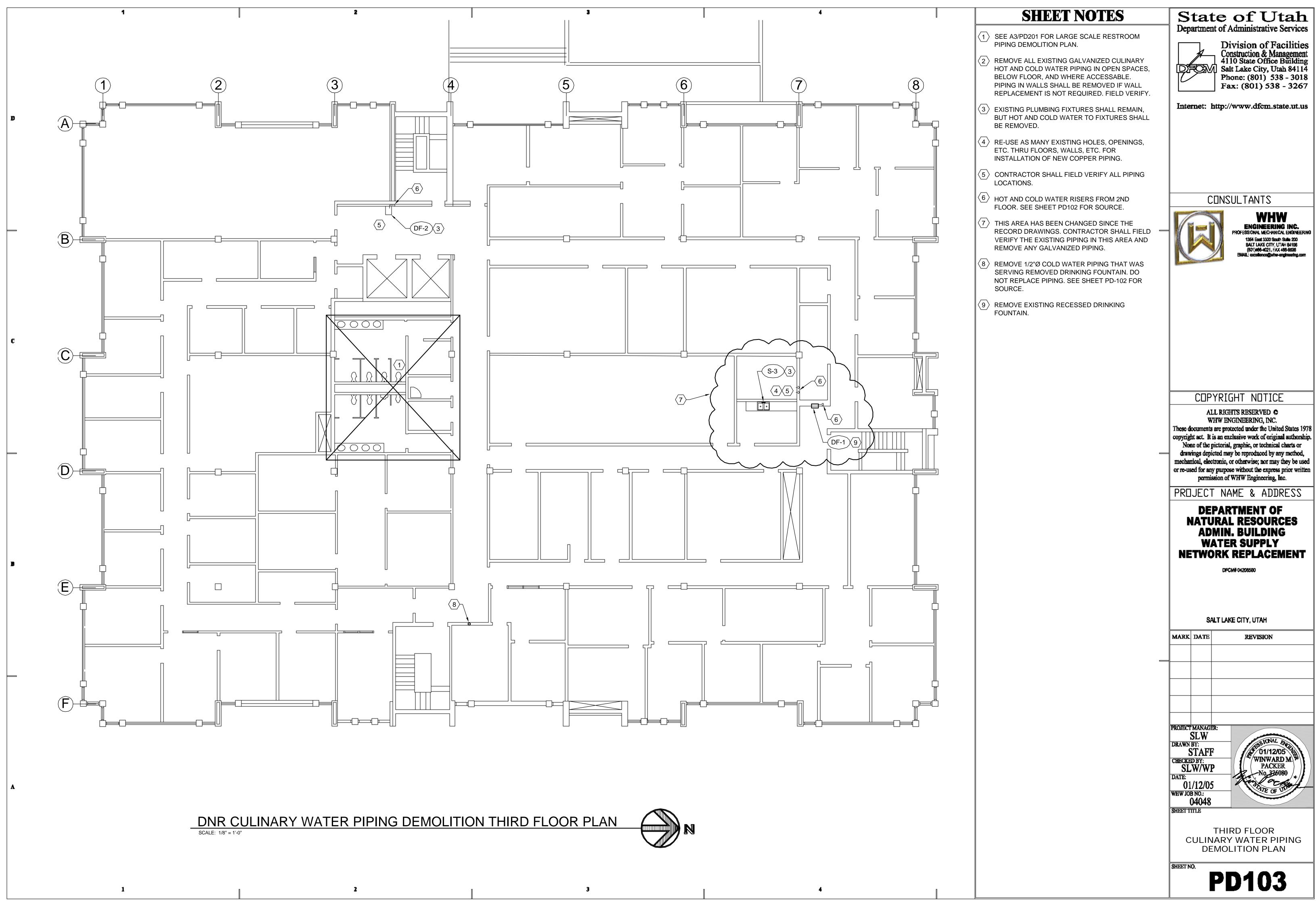
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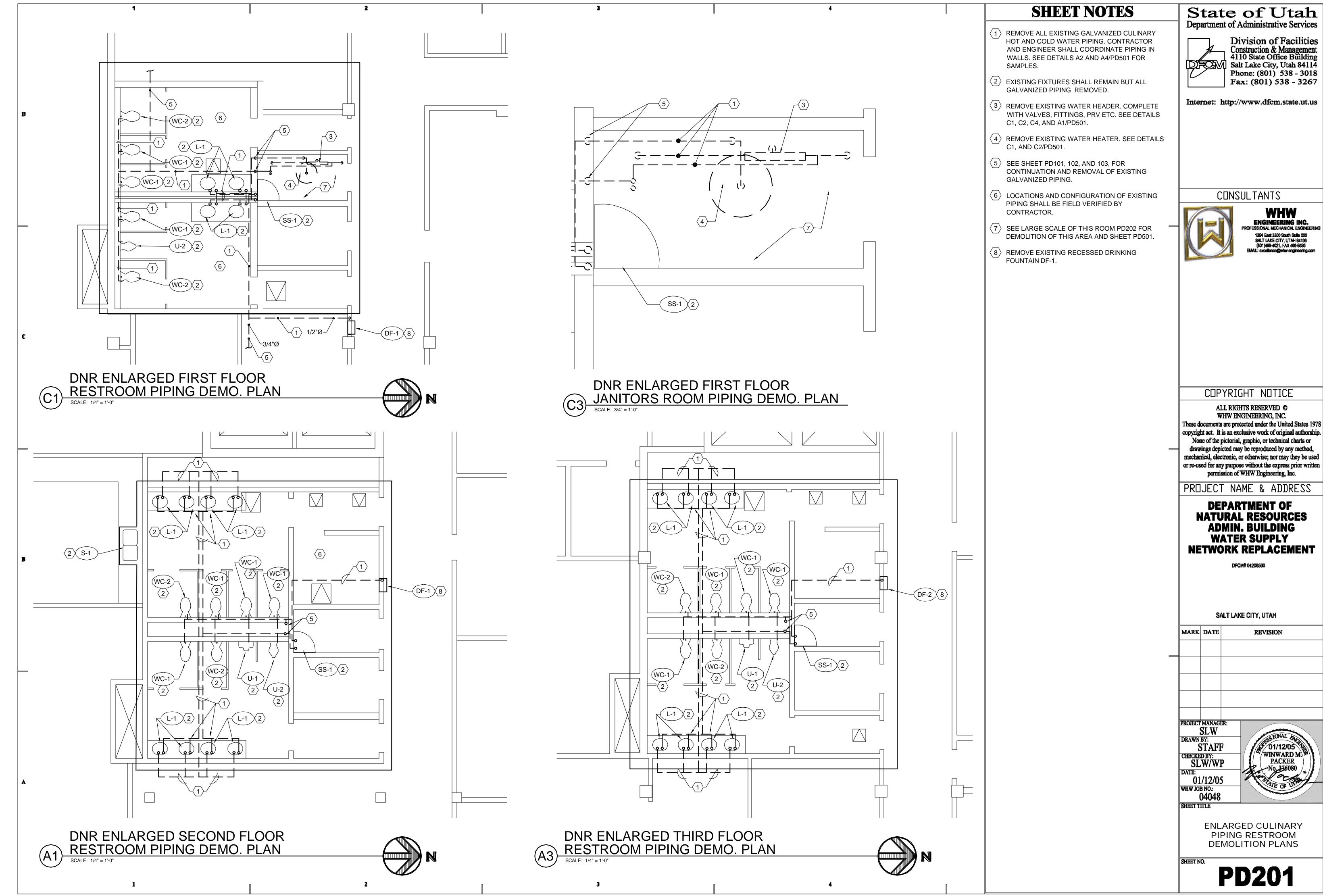
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NATURAL RESOURCES ADMIN. BUILDING

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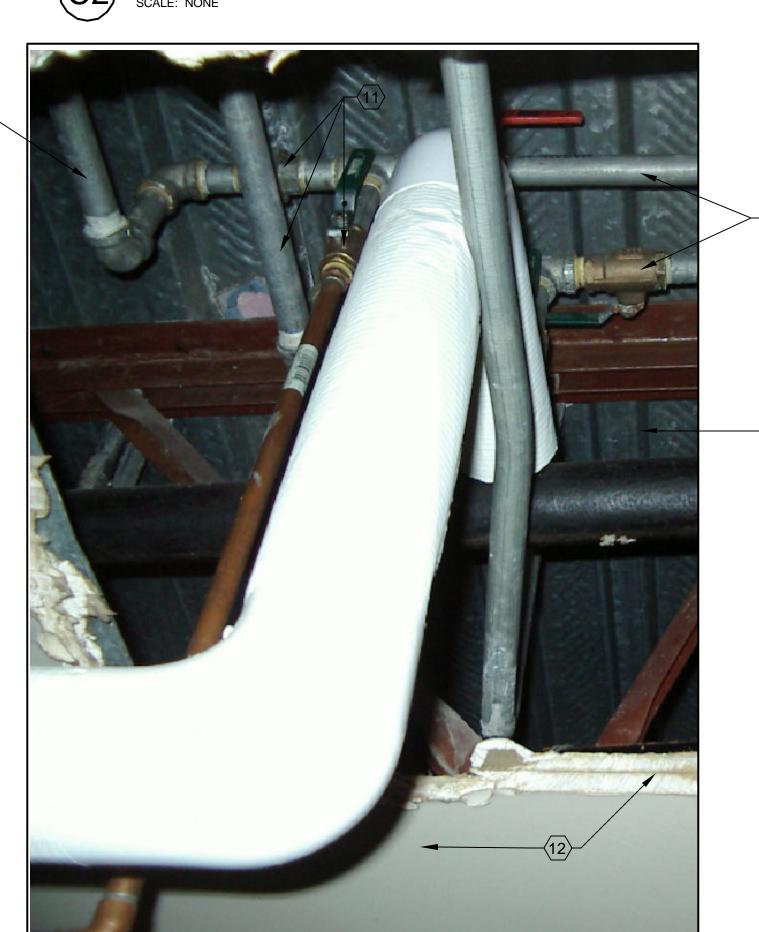
FIRST FLOOR PLUMBING SERVICE CLOSET



FIRST FLOOR PLUMBING SERVICE CLOSET & WATER ENTRANCE AND HEADER.



FIRST FLOOR PLUMBING SERVICE CLOSET



FIRST FLOOR CEILING OPENING



FIRST FLOOR PLUMBING SERVICE CLOSET

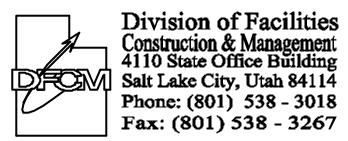


FIRST FLOOR CEILING OPENING

SHEET NOTES

- 1 REMOVE THE EXISTING 1-1/2" GALVANIZED HOT WATER SUPPLY TO BUILDING. USE SAME CEILING OPENING FOR NEW COPPER PIPING.
- (2) REMOVE THE EXISTING 2" GALVANIZED COLD WATER SUPPLY TO BUILDING. USE SAME CEILING OPENING FOR NEW COPPER PIPING.
- REMOVE EXISTING ELECTRICAL HOT WATER HEATER AND ALL ASSOCIATED PIPING, VALVES ETC. ELECTRICAL DISCONNECT AND CONDUIT SHALL BE PRESERVED AND USED FOR NEW HOT WATER HEATER.
- 4 REMOVE EXISTING 3" WATER HEADER-PRV STATION AND 1-1/2" BY-PASS WITH VALVE.
- (5) REMOVE EXISTING 1-1/2" COLD WATER SUPPLY TO HOT WATER HEATER.
- 6 EXISTING FIRE RISER SHALL REMAIN.
- (7) EXISTING 3" DUCTILE IRON WATER SERVICE PIPING TO BUILDING SHALL REMAIN.
- (8) EXISTING DUCTILE IRON PIPING SHALL REMAIN.
- (9) EXISTING COUPLING BETWEEN DUCTILE IRON AND GALVANIZED PIPING SHALL BE REMOVED AND A NEW FITTING BETWEEN THE DUCTILE IRON AND COPPER PIPING SHALL BE PROVIDED.
- (10) CEILING SPACE BETWEEN FIRE RATED CEILING AND THE FLOOR DECKING.
- (11) REMOVE ALL EXISTING GALVANIZED CULINARY HOT AND COLD WATER PIPING THROUGHTOUT THE BUILDING. EXISTING PIPING IS ROUTED BETWEEN THE FIRE RATED CEILING AND THE FLOOR METAL DECK. REMOVE PIPING IN WALLS FROM ABOVE AND BELOW IF POSSIBLE. IF PIPING CANNOT BE REMOVED WITHOUT REMOVING THE WALLS, CONTRACTOR SHALL CAP THE END OF THE PIPING AND THE PIPING ABANDONED IN PLACE.
- 12 FIRE RATED CEILING, CUT WHERE REQUIRED FOR REMOVAL OF PIPING CONTRACTOR SHALL PATCH AND SEAL ALL NEW AND EXISTING OPENINGS IN THE FIRE RATED CEILING, AFTER REMOVING THE EXISTING GALVANIZED PIPING.
- (13) EXISTING ELECTRICAL CONDUIT SHALL REMAIN,

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PROJECT NAME & ADDRESS

DEPARTMENT OF NATURAL RESOURCES ADMIN. BUILDING **WATER SUPPLY NETWORK REPLACEMENT**

DFCM# 04206500

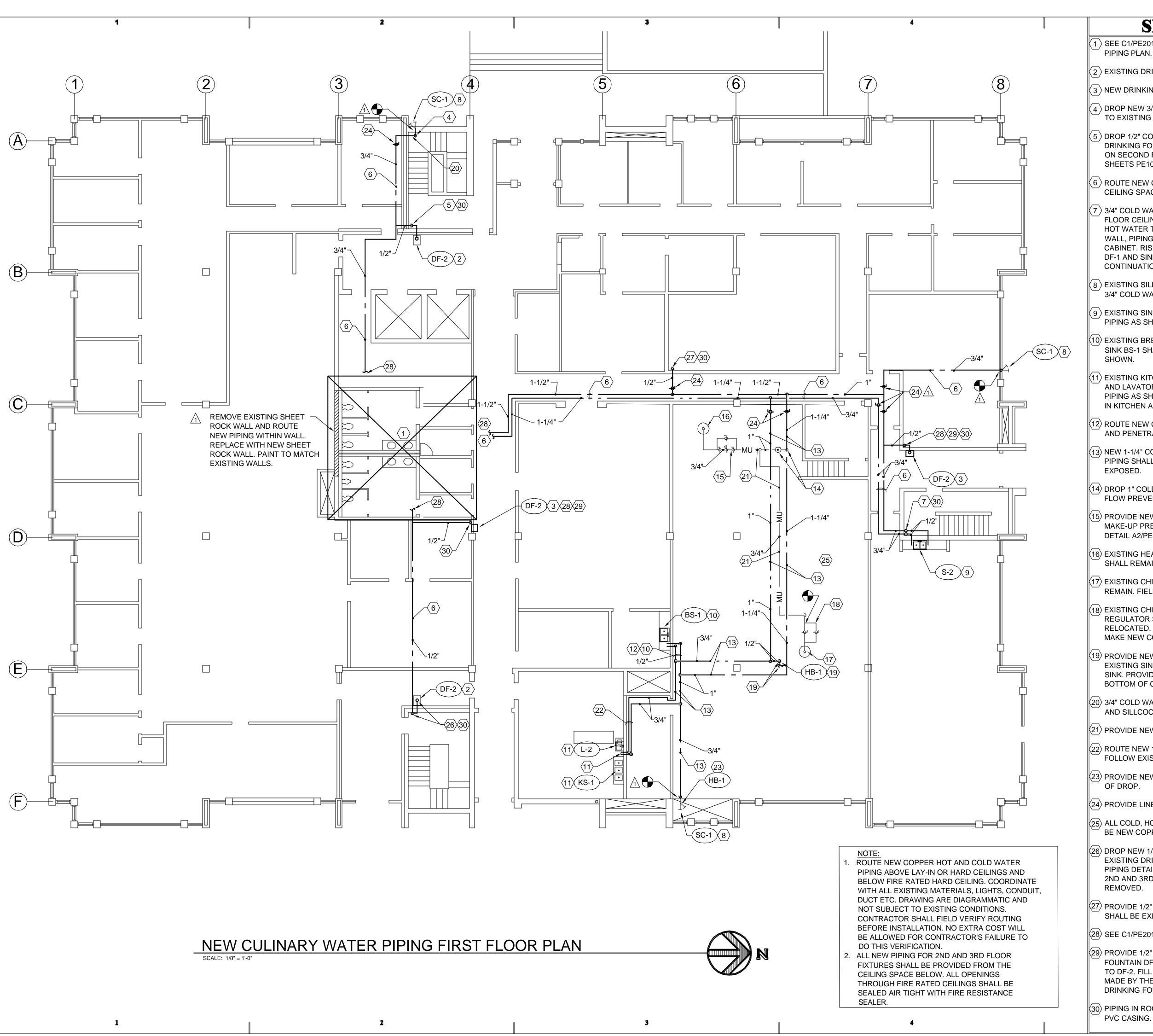
SALT LAKE CITY, UTAH

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WHW JOB NO.: 04048

CULINARY PIPING DEMOLITION DETAILS

PD501



SHEET NOTES

- 1 SEE C1/PE201 FOR LARGE SCALE REST ROOM NEW PIPING PLAN.
- \langle $_2$ angle EXISTING DRINKING FOUNTAIN DF-2 SHALL REMAIN.
- $\langle 3 \rangle$ NEW DRINKING FOUNTAIN DF-2 WALL MOUNTED.
- $raket{4}$ DROP NEW 3/4" COLD WATER PIPING IN STAIRWELL TO EXISTING SILLCOCK IN STAIRWELL.
- (5) DROP 1/2" COLD WATER PIPING TO 1ST FLOOR DRINKING FOUNTAIN DF-2 AND RISE TO SERVE DF-2 ON SECOND FLOOR AND DF-2 ON THIRD FLOOR. SEE SHEETS PE102 AND PE103 FOR CONTINUATION.
- (6) ROUTE NEW COPPER WATER PIPING IN FIRST FLOOR CEILING SPACE.
- 7 3/4" COLD WATER RISER IN STAIRWELL TO SECOND FLOOR CEILING SPACE. DROP 1/2" COLD WATER AND HOT WATER TO SERVE S-2. PENETRATE STAIRWELL WALL, PIPING WILL BE LOCATED IN BOTTOM OF CABINET. RISE TO 2ND FLOOR CEILING TO SERVE DF-1 AND SINK S-3. SEE SHEET PE102 FOR CONTINUATION.
- (8) EXISTING SILLCOCK SHALL REMAIN. PROVIDE NEW 3/4" COLD WATER PIPING.
- (9) EXISTING SINK S-2 SHALL REMAIN. PROVIDE NEW PIPING AS SHOWN.
- (10) EXISTING BREAK ROOM DOUBLE COMPARTMENT SINK BS-1 SHALL REMAIN. PROVIDE NEW PIPING AS SHOWN.
- (11) EXISTING KITCHEN TRIPLE COMPARTMENT SINK KS-1 AND LAVATORY L-2 SHALL REMAIN. PROVIDE NEW PIPING AS SHOWN. ROUTE COPPER PIPING EXPOSED IN KITCHEN AND ROUTE UNDER SINK FOR TIE-INS.
- (12) ROUTE NEW COPPER PIPING IN MECHANICAL ROOM AND PENETRATE WALL UNDER CABINET.
- (13) NEW 1-1/4" COPPER PIPE TO MECHANICAL ROOM. PIPING SHALL BE ROUTED INSIDE THE ROOM AND EXPOSED.
- (14) DROP 1" COLD WATER TO ONE COMMON 1" BACK FLOW PREVENTOR, SEE ISOMETRIC SHEET PE901.
- 15) PROVIDE NEW HEATING HOT WATER SYSTEM MAKE-UP PRESSURE REGULATOR STATION. SEE DETAIL A2/PE501.
- $\langle 16
 angle$ EXISTING HEATING HOT WATER AIR SEPARATOR SHALL REMAIN, FIELD VERIFY EXACT LOCATION.
- (17) EXISTING CHILLED WATER AIR SEPARATOR SHALL REMAIN. FIELD VERIFY EXACT LOCATION.
- (18) EXISTING CHILLED WATER MAKE-UP PRESSURE REGULATOR STATION SHALL REMAIN AND BE RELOCATED. FIELD VERIFY EXACT LOCATION AND MAKE NEW CONNECTION.
- 19) PROVIDE NEW HOT AND COLD WATER DROPS TO EXISTING SINGLE SINK, FIELD VERIFY LOCATION OF SINK. PROVIDE A COLD WATER HOSE BIBB AT BOTTOM OF COLD WATER DROP.
- (20) 3/4" COLD WATER SUPPLY FOR DRINKING FOUNTAINS AND SILLCOCK. SEE PE201 FOR SOURCE.
- (21) Provide New 1" make-up water Piping.
- $\langle 22 \rangle$ ROUTE NEW 1/2" HOT AND COLD WATER TO KITCHEN. FOLLOW EXISTING PIPE ROUTING.
- (23) PROVIDE NEW COLD WATER HOSE BIBB AT BOTTOM OF DROP.
- (24) PROVIDE LINE SIZE BALL VALVES.
- $\langle 25 \rangle$ ALL COLD, HOT AND MAKE-UP WATER LINES SHALL BE NEW COPPER PIPING.
- (26) DROP NEW 1/2" COLD WATER DOWN STAIRWELL TO EXISTING DRINKING FOUNTAIN DF-2. SEE EXPOSED PIPING DETAIL A1/PE502. DRINKING FOUNTAINS FOR 2ND AND 3RD FLOORS HAVE PREVIOUSLY BEEN REMOVED.
- (27) PROVIDE 1/2" COLD WATER TO HUMIDIFIER. PIPING SHALL BE EXPOSED IN COMPUTER ROOM.
- $\langle 28 \rangle$ SEE C1/PE201 FOR CONTINUATION.
- (29) PROVIDE 1/2" COLD WATER PIPING TO NEW DRINKING FOUNTAIN DF-2. DROP EXPOSED PIPING DOWN WALL TO DF-2. FILL IN OPENING WITH SS. BACK SPLASH, MADE BY THE REMOVAL OF THE EXISTING RECESSED DRINKING FOUNTAIN.
- (30) PIPING IN ROOM SHALL BE COVERED WITH WHITE

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PROJECT NAME & ADDRESS

DEPARTMENT OF NATURAL RESOURCES ADMIN. BUILDING WATER SUPPLY NETWORK REPLACEMENT

DFCM# 04206500

SALT LAKE CITY, UTAH

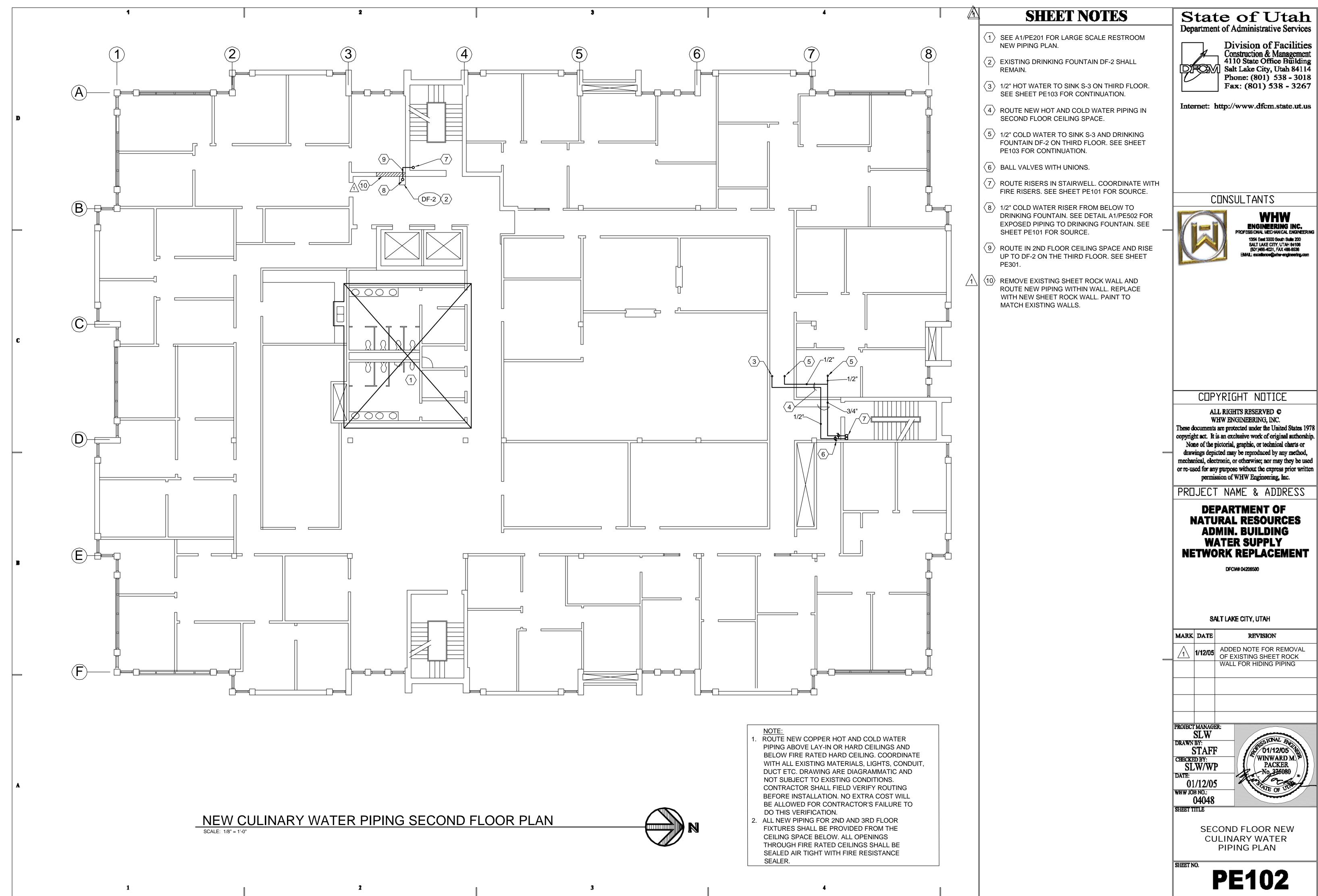
MARK DATE REVISION 1 - ADDED CONNECTION POINTS 2 - ADDED NOTE TO REMOVE WALL TO HIDE PIPING

PROJECT MANAGER: SLW DRAWN BY: STAFF CHECKED BY: SLW/WP 01/12/05

01/12/05 WINWARD M PACKER

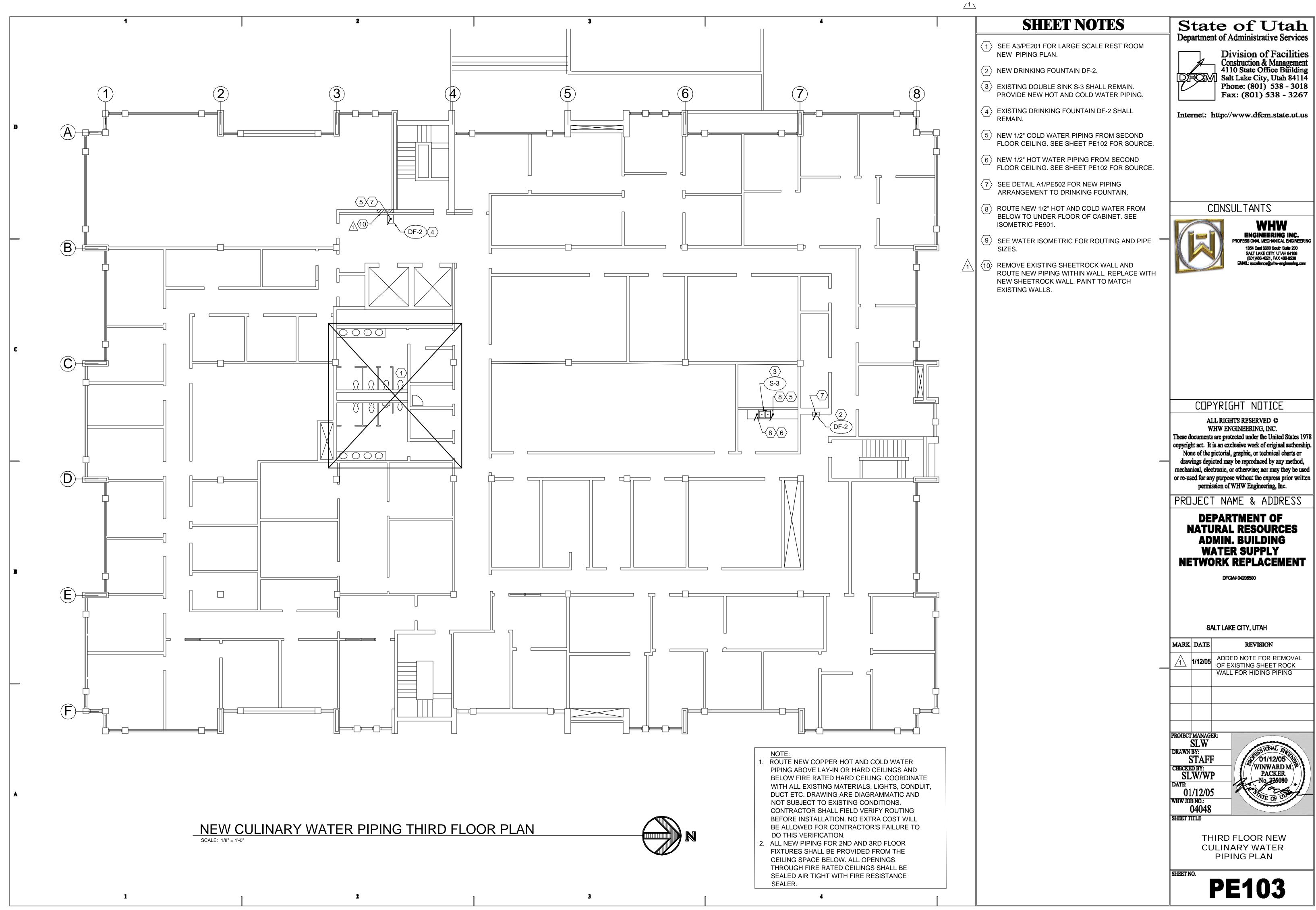
WHW JOB NO.: 04048 SHEET TITLE

> FIRST FLOOR NEW **CULINARY WATER** PIPING PLAN

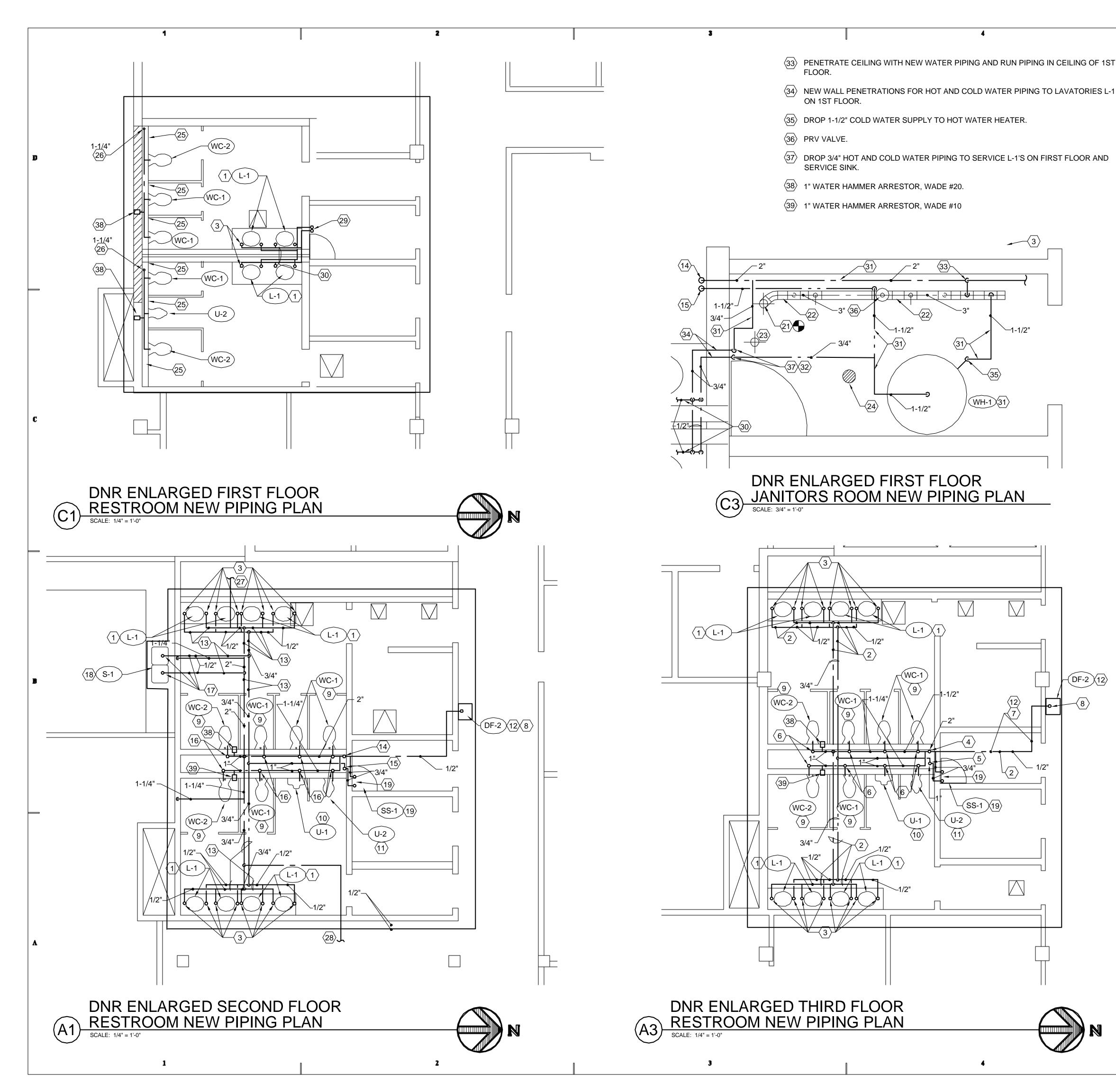


None of the pictorial, graphic, or technical charts or

MARK	DATE	REVISION
1	1/12/05	ADDED NOTE FOR REMOVAL OF EXISTING SHEET ROCK
		WALL FOR HIDING PIPING



MARK	DATE	REVISION
1	1/12/05	ADDED NOTE FOR REMOVAL OF EXISTING SHEET ROCK
		WALL FOR HIDING PIPING



SHEET NOTES

- 1 EXISTING LAVATORIES L-1 SHALL REMAIN AND FITTED WITH NEW HOT AND COLD WATER PIPING.
- $\langle 2 \rangle$ ROUTE HOT AND COLD WATER PIPING IN CEILING OF 2ND FLOOR.





- $\langle 5 \rangle$ 1" HOT WATER RISER FROM SECOND FLOOR. SEE SHEET PE102 FOR SOURCE.
- \langle 6 \rangle ROUTE PIPING IN CHASE OF 2ND FLOOR CEILING AND PROVIDE RISERS AT ALL FIXTURE LOCATIONS.
- $\langle 7 \rangle$ ROUTE 1/2" COLD WATER IN SECOND FLOOR CEILING SPACE.
- $\langle 8 \rangle$ RISE UP THROUGH FLOOR AND CONNECT TO NEW DRINKING FOUNTAIN DF-2. SEE DETAIL A1/PE502.
- 9 EXISTING WATER CLOSET WC-1 AND WC-2 SHALL REMAIN AND FITTED WITH NEW COLD WATER PIPING. SEE DETAIL A2/PE502 AND B1/PE501 FOR DETAIL AT 1ST FLOOR WATER CLOSETS.
- (10) EXISTING URINAL U-1 SHALL REMAIN AND FITTED WITH NEW COLD WATER PIPING.
- (11) EXISTING URINAL U-2 SHALL REMAIN AND FITTED WITH NEW COLD WATER PIPING.
- $\langle 12 \rangle$ PROVIDE NEW DRINKING FOUNTAIN DF-2 AND COLD WATER SUPPLY.
- $\langle 13 \rangle$ ROUTE HOT AND COLD WATER PIPING UNDER FLOOR IN CEILING OF 1ST FLOOR.
- $\langle 14
 angle$ 2"Ø COLD WATER RISER FROM 1ST FLOOR. SEE SHEET PE101 FOR SOURCE AND PE103 FOR CONTINUATION.
- 15) 1"Ø HOT WATER RISER FROM 1ST FLOOR, SEE SHEET PE101 FOR SOURCE AND PE103 FOR CONTINUATION.
- (16) ROUTE PIPING IN CHASE OF 1ST FLOOR CEILING AND PROVIDE RISERS AT ALL FIXTURE LOCATIONS. —
- $\langle \overline{17} \rangle$ ROUTE NEW 1/2" COLD AND HOT WATER PIPING IN 1ST FLOOR CEILING SPACE AND RISE UP IN CABINET BOTTOM TO SERVE EXISTING SINK S-1.
- (18) EXISTING SINK S-1 SHALL REMAIN AND FITTED WITH NEW HOT AND COLD WATER PIPING.
- (19) PROVIDE 1/2" HOT AND COLD WATER PIPING TO EXISTING SERVICE SINK FROM PLUMBING SHAFT USE EXISTING WALL OPENINGS WHERE POSSIBLE.
- $\langle 20 \rangle$ NEW ELECTRIC WATER HEATER. SEE SCHEDULE SHEET PE501 AND PIPING DETAIL C3/PE501.
- $\langle 21 \rangle$ CONNECT TO EXISTING DUCTILE IRON PIPING AS SHOWN ON DETAIL C1/PE501.
- (22) NEW 3" COPPER PIPE HEADER AND PRESSURE REDUCING VALVE. SEE DETAIL C1/PE501.
- $\langle 23
 angle$ EXISTING FIRE RISER SHALL REMAIN.

DF-2 12

- $\langle 24
 angle$ EXISTING FLOOR DRAIN SHALL REMAIN.
- /1\|\(25\) REMOVE EXISTING SHEET ROCK WALL AND ROUTE SHEET ROCK WALL. PAINT TO MATCH EXISTING
- 1\26 DROP COLD WATER PIPING DOWN INSIDE WALL
- $\langle 27 \rangle$ 3/4" COLD WATER PIPING TO DRINKING FOUNTAINS AND SILCOCK WEST SIDE OF BLDG. SEE SHEET PE-101 FOR CONTINUATION.
- (28) 1/2" COLD WATER PIPING TO DRINKING FOUNTAINS, EAST SIDE. SEE SHEET PE101 FOR CONTINUATION.
- (29) SEE C-3 THIS SHEET FOR CONTINUATION.
- (30) ROUTE HOT AND COLD WATER PIPING UNDER COUNTER FOR 1ST FLOOR L-1'S. PIPING SHALL BE STAINLESS STEEL OR CHROME PLARED COPPER.
- $\langle 31
 angle$ ROUTE PIPING WITHIN THE JANITORS ROOM AS HIGH AS POSSIBLE.
- (32) ROUTE NEW PIPING EXPOSED TO EXISTING SERVICE SINK. SEE DETAIL D4/PE502.

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PROJECT NAME & ADDRESS

DEPARTMENT OF NATURAL RESOURCES ADMIN. BUILDING WATER SUPPLY NETWORK REPLACEMENT

DFCM# 04206500

SALT LAKE CITY, UTAH

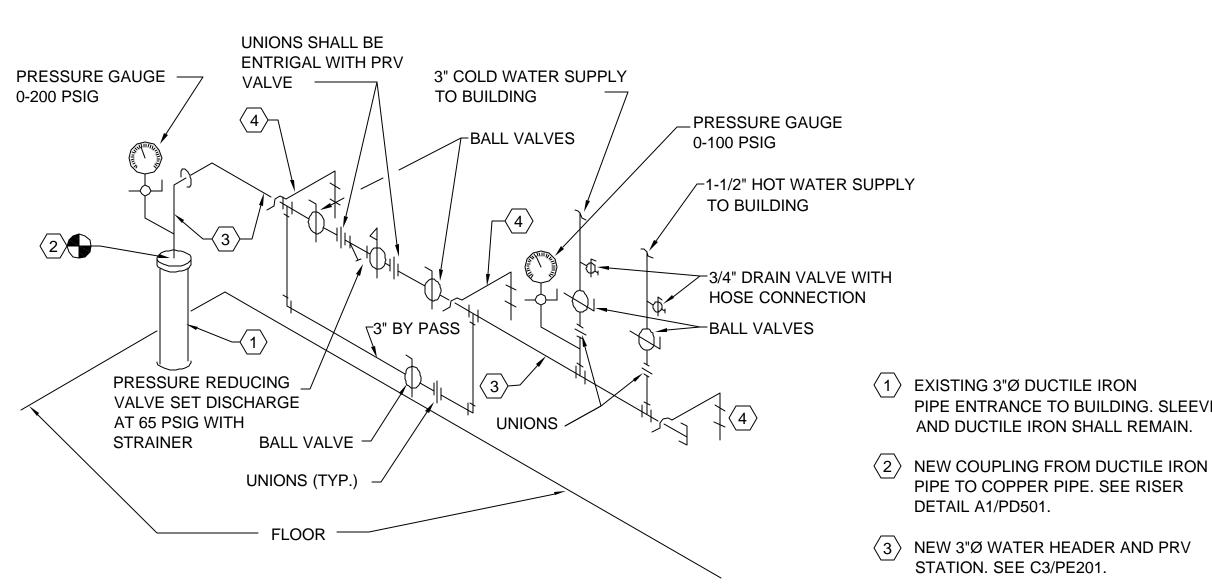
MARK	DATE	REVISION
1	1/12/05	1 - ADDED NOTE TO REMOVE WALL TO HIDE PIPING

PROJECT MANAGER: SLW DRAWN BY: STAFF CHECKED BY: SLW/WP

01/12/05 WINWARD M. PACKER

01/12/05 WHW JOB NO.: 04048

> **ENLARGED CULINARY** PIPING RESTROOM **PLANS**



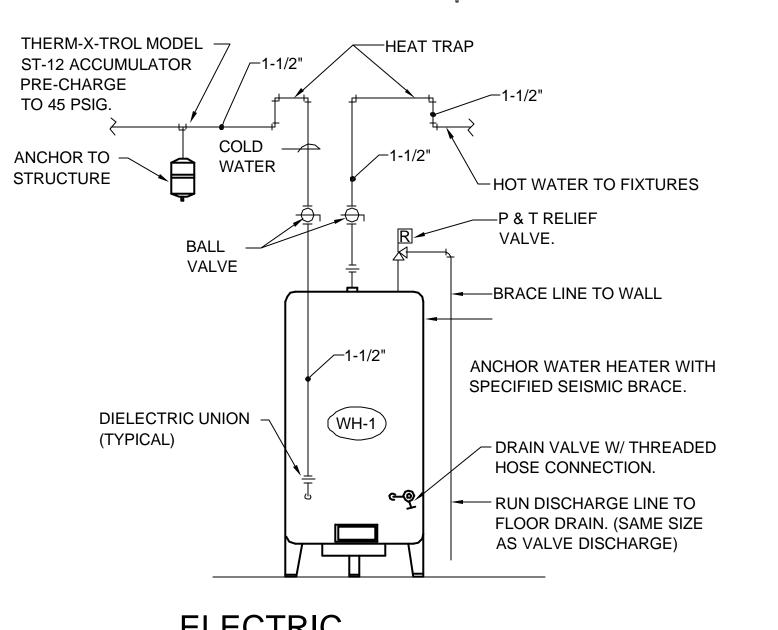
NEW WATER PRESSURE

SCALE: NONE

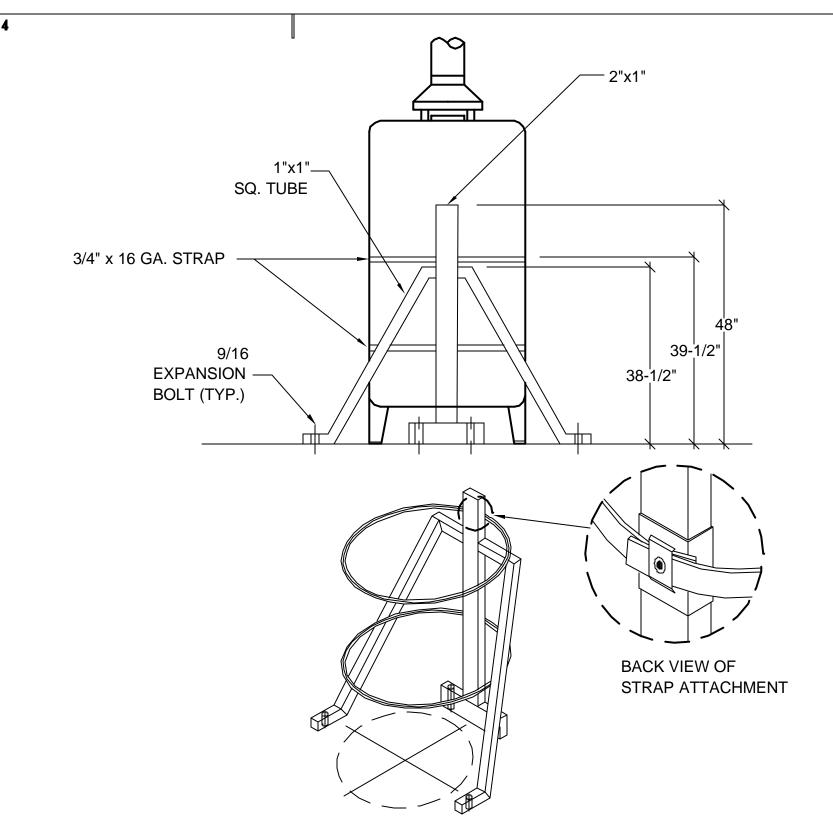
REDUCING STATION DETAIL

PIPE ENTRANCE TO BUILDING. SLEEVE AND DUCTILE IRON SHALL REMAIN.

4 SUPPORTS-ATTACH TO WALL. STRAP PIPING TO HORIZONTAL HEADER.







WATER HEATER SEISMIC SUPPORT DETAIL

			WATER	R HEATER	SCHEDULE		
SYMBOL	WATTAGE	GPH RECOVERY @ 100°F	STORAGE CAPACITY	KW INPUT	VOLTAGE	# OF ELEMENTS	MANUFACTURER
WH-1	18,000	73 GPH	82 GALLON	18	480/60/3Ø	3	STATE SB6-82-18

\sim	UNION —	-BALL VALVE	3/4" MAKE-UP WATER TO CHILLED WATER SYSTEM. — SEE SHEET PE101 FOR CONTINUATION.
RELIEF VALVE 3/4" BALL VALVE TO EXISTING HEATING HOT WATER AIR RELIEF VALVE TO FLOOR DRAIN	PRESSURE UNIONS REDUCTIONS REDUCTIONS PRESSURE PRESSURE REDUCTIONS PRESSURE STRAIN VALVE	3/4" BALL VALVE	1"_UNIONS
SEPARATOR	ATING HOT WATER PI		BACKFLOW PREVENTER WITH FUNNEL AND DRAIN TO FLOOR

		INDIVIDUAL	IXTU	,
SYMBOL	FIXTURE	C.W.	H.W.	REMARKS
WC-1	WATER CLOSET	1"	-	WALL MOUNTED, FLUSH VALVE
WC-2	WATER CLOSET	1"	-	HANDICAPPED,WALL MTD. FV
(L-1)	LAVATORY	1/2"	1/2"	CABINET MOUNTED ②
L-2	LAVATORY	1/2"	1/2"	WALL MOUNTED 2
SS-1	SERVICE SINK	3/4"	3/4"	FLOOR MOUNTED 2
DF-1	DRINKING FOUNTAIN	1/2"	1/2"	FULLY RECESSED-REMOVE AND REPLACE WITH DF-2
DF-2	DRINKING FOUNTAIN	1/2"	1/2"	HANDICAPPED (1)(3)
SC-1	SILL COCK	3/4"	-	NONE FREEZE TYPE
S-1	SINK	1/2"	1/2"	CABINET MOUNTED, STAINLESS STEEL 2
(HB-1)	HOSE BIBB	3/4"	-	WITH VACUUM BREAKER ①
KS-1	KITCHEN SINK	1/2"	1/2"	CABINET MOUNTED, STAINLESS STEEL 3 COMPARTMENT (2)
BS-1	BREAKROOM SINK	1/2"	1/2"	CABINET MOUNTED, STAINLESS STEEL 2 COMPARTMENT (2)
S-2	SINK	1/2"	1/2"	CABINET MOUNTED, STAINLESS STEEL 2 COMPARTMENT (2)
S-3	LAB SINK	1/2"	1/2"	CABINET MOUNTED, STAINLESS STEEL 2 COMPARTMENT (2)
S-4	SINK	1/2"	1/2"	SINGLE, FLOOR MOUNTED MECH. ROOM 2
U-1	URINAL	3/4"	-	HANDICAPPED (1)
<u>U-2</u>	URINAL	3/4"	-	WALL MTD. FLUSH VALVE (1)

- (1.) EXISTING FIXTURES WITH NEW COLD WATER SUPPLY.
- (2) EXISTING FIXTURES WITH NEW HOT AND COLD WATER SUPPLY.
- (3) NEW FIXTURE ADDED.

State of Utah
Department of Administrative Services



Division of Facilities Construction & Management 4110 State Office Building Salt Lake City, Utah 84114 Phone: (801) 538 - 3018 Fax: (801) 538 - 3267

Internet: http://www.dfcm.state.ut.us

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PROJECT NAME & ADDRESS

DEPARTMENT OF NATURAL RESOURCES ADMIN. BUILDING WATER SUPPLY NETWORK REPLACEMENT

DFCM# 04206500

SALT LAKE CITY, UTAH

MARK	DATE	REVISION

PROJECT MANAGER: DRAWN BY: STAFF CHECKED BY: SLW/WP

01/12/05 WHW JOB NO.: 04048

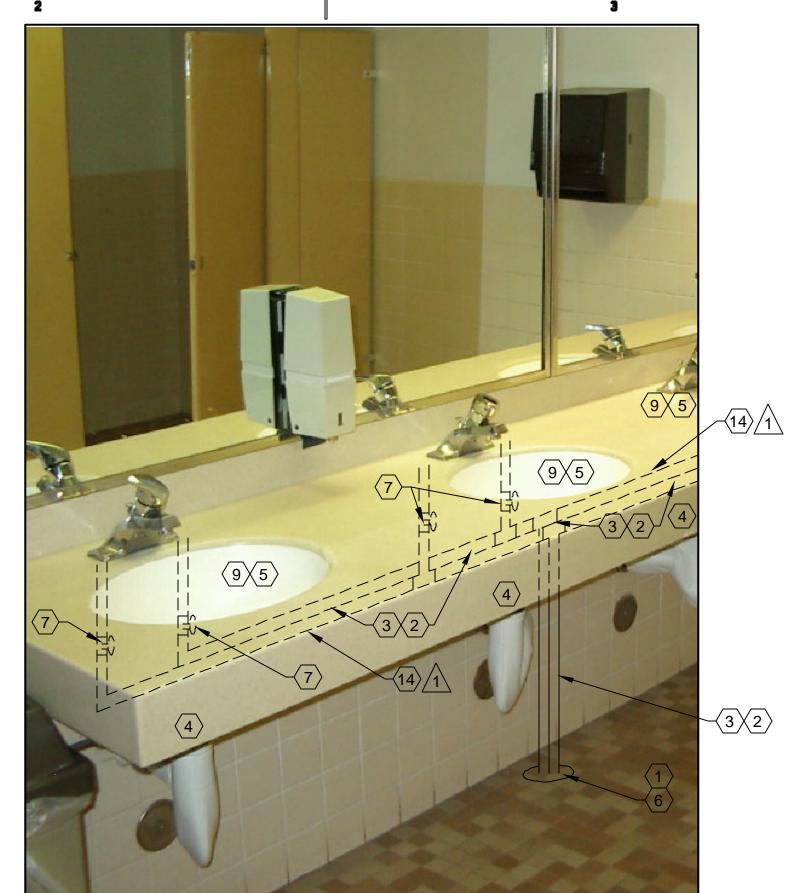
CULINARY PIPING DETAILS



LAVATORY NEW PIPING INSTALLATION 2ND FLOOR LAVATORIES



TYPICAL DRINKING FOUNTAIN NEW PIPING INSTALLATION



LAVATORY NEW PIPING INSTALLATION 3RD FLOOR LAVATORIES

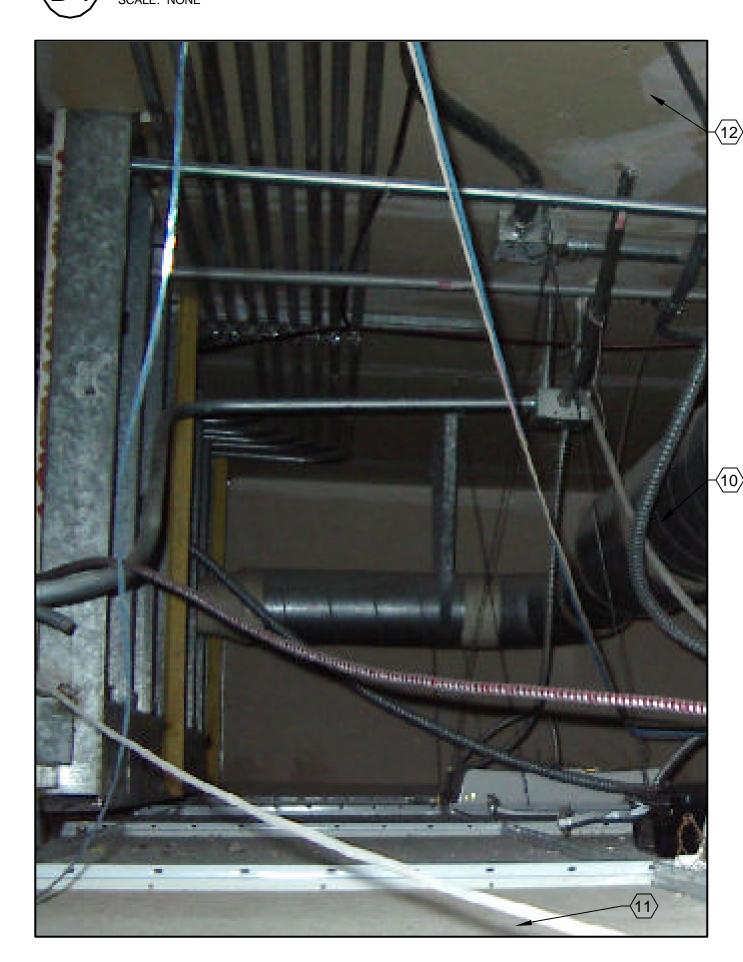


TYPICAL WATER CLOSET NEW PIPING INSTALLATION FOR 1ST FLOOR



TYPICAL SERVICE SINK NEW PIPING INSTALLATION

SCALE: NONE



TYPICAL CEILING SPACE FOR ROUTING OF NEW PIPING

SHEET NOTES

- 1 DRILL OPENINGS THRU EXISTING FLOORS.
- (2) NEW STAINLESS STEEL OR CHROME PLATED HOT AND COLD WATER PIPING.
- (3) NEW STAINLESS STEEL OR CHROME PLATED
- SLEEVE OVER COPPER PIPING.
- EXISTING LAVATORY FAUCET. 5 EXISTING CABINET MOUNTED LAVATORIES SHALL

(4) CONNECT NEW HOT AND COLD WATER PIPING TO

- 6 PROVIDE ESCUTCHEON PLATES WHERE NEW PIPING PENETRATES FLOOR.
- $\overline{\langle 7 \rangle}$ PROVIDE IN-LINE STOPS.
- (8) CONNECT NEW PIPING INTO EXISTING FAUCET BEHIND WALL.
- (9) EXISTING PLUMBING FIXTURES SHALL REMAIN.
- 10 TYPICAL CEILING SPACE WHERE NEW COPPER PIPING SHALL BE LOCATED AND DISTRIBUTED.
- (11) EXISTING LAY-IN CEILING.
- $\langle 12 \rangle$ EXISTING FIRE RATED CEILING.
- (13) CONNECT TO EXISTING FLUSH VALVE FROM BEHIND WALL.
- (14) ROUTE NEW TUBING AS HIGH AS POSSIBLE UNDER CABINET OUT OF SIGHT.

ROUTE NEW COPPER HOT AND COLD WATER PIPING ABOVE LAY-IN OR HARD CEILINGS AND BELOW FIRE RATED HARD CEILING. COORDINATE WITH ALL EXISTING MATERIALS, LIGHTS, CONDUIT,

NOT SUBJECT TO EXISTING CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ROUTING BEFORE INSTALLATION. NO EXTRA COST WILL BE ALLOWED FOR CONTRACTOR'S FAILURE TO

. ALL NEW PIPING FOR 2ND AND 3RD FLOOR

CEILING SPACE BELOW. ALL OPENINGS THROUGH FIRE RATED CEILINGS SHALL BE SEALED AIR TIGHT WITH FIRE RESISTANCE

FIXTURES SHALL BE PROVIDED FROM THE

DO THIS VERIFICATION.

SEALER.

State of Utah
Department of Administrative Services



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PROJECT NAME & ADDRESS

DEPARTMENT OF NATURAL RESOURCES ADMIN. BUILDING WATER SUPPLY NETWORK REPLACEMENT

DFCM# 04206500

SALT LAKE CITY, UTAH

MARK	DATE	REVISION
1	1/12/05	LOCATE PIPING CONCEALED UNDER COUNTER WITH ONLY
		TWO FLOOR PENETRATIONS FOR EACH BANK OF LAVATORIES

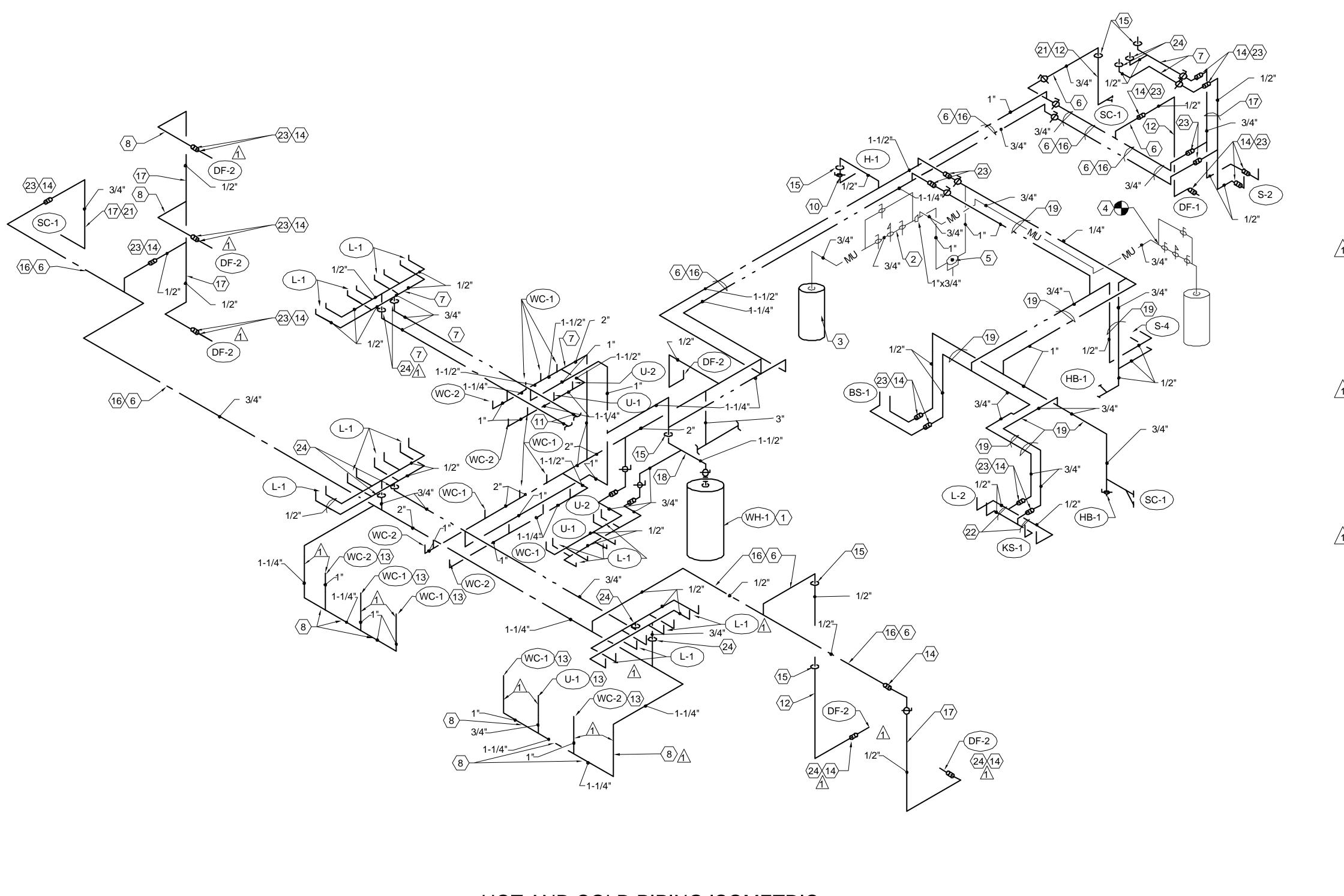
PROJECT MANAGER: SLW

DRAWN BY:
STAFF
CHECKED BY:
SLW/WP

01/12/05 WHW JOB NO.: 04048

CULINARY PIPING

INSTALLATION DETAILS

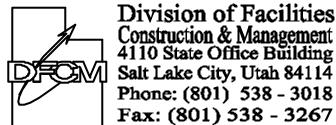


HOT AND COLD PIPING ISOMETRIC

SHEET NOTES

- 1 NEW ELECTRIC HOT WATER HEATER. SEE DETAIL C3/PE501.
- 2 NEW HEATING HOT WATER MAKE-UP WATER LINE AND PRV STATION. SEE DETAIL A1/PE501.
- $\langle 3 \rangle$ EXISTING HEATING HOT WATER SEPARATOR.
- 4 EXISTING CHILLED WATER AIR SEPARATOR AND PRV STATION. CONNECT TO NEW PIPING AS SHOWN.
- (5) NEW 1" BACKFLOW PREVENTOR TO SERVE BOTH CHILLED AND HOT WATER MAKE-UP WATER SYSTEMS. SEE DETAIL A1/PE501.
- 6 ROUTE CULINARY HOT AND COLD WATER PIPING IN CEILING OF FIRST FLOOR TO SERVE BOTH 1ST AND 2ND FLOORS.
- $\overline{\langle 7 \rangle}$ ROUTE CULINARY HOT AND COLD WATER PIPING IN 2ND FLOOR CEILING SPACE TO SERVE 3RD FLOOR.
- $\langle 8 \rangle$ ROUTE COLD WATER PIPING WITHIN WALL.
- (9) EXISTING 1ST FLOOR LAVATORIES SHALL BE CONNECTED TO NEW HOT AND COLD WATER PIPING FROM CUSTODIAL CLOSET THRU THE WALL AND UNDER CABINET. PIPING EXPOSED UNDER THE COUNTER SHALL BE STAINLESS STEEL OR CHROME PLATED. ROUTE AS HIGH AS POSSIBLE UNDER THE COUNTER.
- (10) PIPING DROP TO COMPUTER ROOM SHALL BE EXPOSED AND INSULATED WITH A PVC JACKET COVERING.
- (11) ROUTE TO FOUR LAVATORIES, PIPE AS INDICATED FOR THE LAVATORIES SHOWN ON THE OTHER END OF THIS PIPING.
- (12) DROP DOWN FROM 1ST FLOOR CEILING. EXPOSED DROP SHALL BE INSULATED WITH A PVC JACKET COVERING.
- (13) RISERS TO WATER CLOSETS AND URINAL ON FIRST FLOOR SHALL BE ROUTED IN THE WALL.
- (14) WALL PENETRATIONS-PROVIDE WALL PLATES.
- (15) CEILING PENETRATION PROVIDE CEILING PLATES. =
- ROUTE IN 1ST FLOOR CEILING SPACE-INSULATE ONLY, PVC JACKET NOT REQUIRED.
- (17) ROUTE PIPING IN STAIRWELL. INSULATE WITH PVC JACKET COVERING.
- (18) PIPING IN CUSTODIAL CLOSET SHALL BE INSULATED ONLY.
- (19) PIPING IN MECHANICAL ROOM SHALL BE INSULATED ONLY.
- 20 ROUTE HOT WATER PIPING OVER COLD WATER PIPING SO BOTH ARE SUPPORTED FROM WALL.
- (21) PIPING DROP TO SILLCOCK SHALL BE INSULATED WITH PVC JACKET COVERING.
- (22) ROUTE PIPING EXPOSED ON WALL OR IN CABINET OF TRIPLE COMPARTMENT SINK. PIPING IN KITCHEN SHALL BE CHROME PLATED, COPPER, OR STAINLESS STEEL.
- $\langle 23 \rangle$ WALL PENETRATIONS. SEAL AROUND PIPING.
- 24 FLOOR PENETRATION-PROVIDE ESCUTCHEON PLATES.
- (25) COLD WATER HEADER. SEE DETAIL C1/PE501 AND C3/PE201.
- ROUTE NEW COPPER HOT AND COLD WATER PIPING ABOVE LAY-IN OR HARD CEILINGS AND BELOW FIRE RATED HARD CEILING. COORDINATE WITH ALL EXISTING MATERIALS, LIGHTS, CONDUIT, DUCT ETC. DRAWING ARE DIAGRAMMATIC AND NOT SUBJECT TO EXISTING CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ROUTING BEFORE INSTALLATION. NO EXTRA COST WILL BE ALLOWED FOR CONTRACTOR'S FAILURE TO DO THIS VERIFICATION.
- ALL NEW PIPING FOR 2ND AND 3RD FLOOR FIXTURES SHALL BE PROVIDED FROM THE CEILING SPACE BELOW. ALL OPENINGS THROUGH FIRE RATED CEILINGS SHALL BE SEALED AIR TIGHT WITH FIRE RESISTANCE SEALER.

State of Utah Department of Administrative Services



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PROJECT NAME & ADDRESS

DEPARTMENT OF NATURAL RESOURCES ADMIN. BUILDING WATER SUPPLY NETWORK REPLACEMENT

DFCM# 04208500

SALT LAKE CITY, UTAH

MARK	DATE	REVISION	
1	1/12/05	COVERING OF PIPING	

PROJECT MANAGER: DRAWN BY: STAFF CHECKED BY: SLW/WP

01/12/05

WHW JOB NO.: 04048

PIPING ISOMETRIC PLAN

01/12/05

WINWARD M.

PACKER